



## **An Update of the CMD Project's Market Surveillance Activities**

**The Egypt Capital Markets Development Project**



CHEMONICS INTERNATIONAL INC.



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### **A. Introduction**

As part of its 1999 Work Plan, the Capital Markets Development (CMD) project proposed conducting a two-session workshop on market surveillance techniques for representatives from the CMA and CASE (CASE 1.4.4). This workshop was originally scheduled to take place during February and March 1999. In addition, the project's work plan proposed three surveillance training sessions for the CMA staff, and advice and assistance on surveillance technology (CMA 1.3.1 and 2.2). With the development of several factors—the different skill levels of the two staffs, a modification of the mode of delivery, and the expansion of the scope of the project's surveillance activities—the nature of the workshops, as well as the project's surveillance work in general, has changed. Most importantly, the project's long-term stock exchange advisor has been conducting informal discussion sessions and on-the-job training activities with the CMA and CASE staffs, substituting for the formal workshops that were originally proposed. To date, we have conducted 12 separate sessions at the CMA and four at CASE. The project plans to continue these workshops, on a regular basis, throughout the year, and believes that they will be a more effective means of imparting the required information.

In light of these modifications to the project's original activities and deliverables, our surveillance activities will be far more extensive than originally anticipated in the 1999 Work Plan. In order to bring USAID and our counterpart institutions up to date on the progress of the project's surveillance activities, this report provides a summary of current activities and plans for the coming months. The appendices include some of the most important materials used during our workshops and presentations.

### **B. Modifications to the Project's Surveillance Activities**

As noted above, the project's surveillance activities, particularly the training component, have been modified in light of three factors—the different skill levels of the two staffs, a modification of the mode of delivery, and the expansion of the scope of the project's surveillance activities.

As investigations into the skills of the CMA and CASE staffs proceeded, it became apparent that they had very different levels of understanding. At the CMA, the staff has been performing rudimentary surveillance, without the benefit of automated systems. On the other hand, the CASE surveillance group is newly organized and composed of individuals drawn from the exchange's other departments. Forming the surveillance group is the exchange's first step toward developing a fully operational surveillance department. Because of these circumstances, the CASE group's knowledge was far different from that of its counterpart at the CMA, requiring the project to develop and conduct different training programs for each institution, at least until they acquire comparable levels of understanding and experience.

In addition, the project found that a two-session workshop would not be the best method of delivering the required materials to either group. Rather, a series of informal workshops were developed and conducted. The workshops have proven effective in establishing a strong and cooperative relationship between the project's stock exchange advisor, who is conducting the sessions, and the surveillance staffs at both partner institutions. They have also allowed a forum for discussing a wide range of issues, conducting on-the-job training, and assessing the effectiveness and value of the material presented on an ongoing basis. The project plans to continue these informal workshops, on a periodic basis, throughout the year. Section C of this update provides an outline of the workshops the project has conducted, and the appendices provide copies of some of the materials that we used.

Finally, the project's surveillance activities have been modified as its partner institutions come to realize the integrated nature of the task. Most importantly, both the CMA and CASE are considering transferring responsibility for day-to-day surveillance to CASE, after which the CMA, which currently undertakes this role, may assume an oversight function (i.e., it will conduct "surveillance of surveillance"). This modification of roles, as explained verbally to the CMA Chairman and in a March 26 discussion document, will have significant implications for the procurement of new technology to improve surveillance, as well as on future training activities. The partner institutions, in discussions with the project, have also come to realize that they will need to establish mechanisms for high-level coordination on these activities—coordination that includes the CMA, CASE, and MCSA. The final section of this document provides an outline of the project's plans to assist its partner institutions in this area, as well as an outline of the other activities the project has planned for the coming months.

### C. Workshops on Surveillance Techniques

#### C1. CASE

The project's workshops for the CASE surveillance group took place in four phases. During the first session, the project's stock exchange advisor delivered a slide presentation on US stock exchanges and how they operate (see Appendix A). This presentation, which was delivered on February 2, was attended by approximately 20 members of the CASE staff from a variety of different departments.

The second session was delivered to the eight persons selected to become members of the new surveillance department. For the presentation, which was held on February 9, 1999, four handouts were prepared (see Appendix B):

- *Surveillance* discusses the rationale for surveillance by addressing the questions of who, what, when, where, and why.
- *The Three Questions of Surveillance* outlines surveillance tasks, providing a guideline that can be returned to for fundamental clarification.
- *Tasks* presents the diversity of functions that can be included in a fully integrated surveillance department.
- *Division of Labor* illustrates the interrelation of participants in the market and who is responsible to whom.

Following this presentation, Mr. Bill Lee, the project's stock exchange advisor, conducted a lengthy one-on-one discussion with Mr. Moataz El Demerdash, the newly appointed head of surveillance at CASE, on February 15. During this meeting there was further elaboration on the different functions performed by surveillance-related personnel. There was also some attempt to determine future staffing needs and to assist Mr. El Demerdash in the forward budgeting and planning process.

The fourth meeting in this series was held on February 24 and was attended by the members of the proposed exchange surveillance department. At this gathering, "front running" and the components that need to be observed to detect violations in the market were discussed. This exercise was intended to introduce terms and their meanings so as to base future instruction on a firm foundation. Understanding these terms—in particular market impact, insider trading, and fiduciary responsibility—is essential for analysts as they undertake their tasks. For this session, a number of handouts were prepared (see Appendix C).

## C2. CMA

At the CMA, where the surveillance department is already functioning, the project has conducted 12 informal discussion workshops. Since the surveillance staff is fully operational, meetings were easier to arrange, as was establishing regular hours and locations for the sessions. These sessions, each of which was attended by approximately six members of the CMA surveillance staff, focused on the following:

- Planning for market surveillance workshops and training methods
- What is surveillance?
- Dividing responsibilities for surveillance and the concept of an SRO
- Price manipulation and access to information
- EDGAR and issuer disclosure
- Trade reporting and transparency
- Short selling, focusing on the MobiNil trade dispute
- Front running, fiduciary responsibility, market impact, and time and space advantage
- Market surveillance mechanisms at the Philadelphia Stock Exchange
- Bid and offer display and CASE error procedures
- On-the-job training and observation in the surveillance office
- Creation of flags to identify activities which should be investigated further

The project will hold additional sessions, with case studies based on actual trading data (see below), during the second and subsequent quarters.

### **D. Upcoming Activities and the Integration of the Project's Surveillance Activities**

The project's upcoming surveillance activities fall into four areas: training, automation, policy-related matters, and legal and regulatory enhancements.

The project plans to continue the informal discussion workshops with both the CMA and CASE surveillance staffs. The project also sponsored attendance by Mr. Moataz El Demerdash, the CASE surveillance manager, at a US Securities and Exchange Commission program, as part of the "International Institute for Securities Market Development," held between April 12 and 23. The project also sponsored attendance by selected members of both surveillance departments at a KPMG financial analysis course being held April 17 and 18. Participation in both programs was facilitated through the USAID-funded DT2 project.

In addition, both the CMA and MCSD information technology departments have requested introductory sessions on market surveillance, which the project will develop and provide during the second quarter. Finally, the project will engage two short-term consultants: one to help design the surveillance workspaces at both the CMA and CASE and another to provide on-the-job training and specialized workshops in the examination of brokerage firms' back-office personnel.

The project will also work with Mr. El Demerdash to coordinate future meetings between the CASE and CMA surveillance departments, where training activities, especially as they relate to coordination between the two institutions, will be planned.

To enhance the training program, as well as to further develop the CMA's surveillance capabilities, the project is taking initial steps toward automating the surveillance function. Currently, the CMA's surveillance department has no way of sorting through the daily volume of trading to determine those activities which might indicate some type of improper activity—activities which warrant further investigation. As a first step toward developing an electronic means of identifying such behavior, the project has received historical trading data on a number

of issues from the CMA's IT department. With this data, we are helping the CMA's staff to determine what constitutes "normal" trading activity for particular issues—e.g., what constitutes the stock's normal volume of trading, price variation, timing of transactions, etc. With information on the normal rhythm of traffic in the Egyptian market, detecting abnormal trading activities can be automated.

The project will assist the CMA with developing similar historical references for each issue traded on the exchange. The database of normal trading activity will then be electronically compared, on an ongoing basis, to current market behavior. Such a mechanism for identifying the group of trades that warrant further investigation will be a major enhancement to the CMA surveillance department's capabilities. The historical database of trading activity will also allow the project to construct case studies for future training activities, case studies that are appropriate to the Egyptian environment and relevant to the market.

The project also plans to advise the CMA and CASE on procuring other technological enhancements for their surveillance systems, but decisions on this issue will depend on policy-related matters that need to be discussed among the institutions' senior managers. To help move the policy issues forward and provide some clear guidance, the project prepared an initial discussion paper for the CMA Chairman (included as Appendix E), and is in the process of preparing an additional paper outlining best practices for structuring market surveillance responsibilities and delegation of market regulation in general.

The initial discussion paper advises the CMA Chairman to coordinate surveillance plans with CASE and MCSD, as a way of clarifying key issues before technology procurements are made. Most importantly, the CMA and other partner institutions need to clarify their future roles in the surveillance of the Egyptian market. The CMA and CASE are considering transferring the daily responsibility for surveillance to CASE, which may eventually function as a self-regulatory organization in this regard. The change will have important implications for the procurement of new surveillance technology, as new equipment should be tailored to the projected role of each institution.

The discussion paper to the CMA Chairman advises that the Chairmen of the CMA, CASE, and MCSD meet to discuss these issues, and offers the project's assistance as an advisor, outlining issues and recommending various options for consideration. The paper also suggests that a working group of middle managers be established to coordinate surveillance activities on an ongoing basis. Such a working group will enable the institutions to share knowledge, experiences, and information, and to develop coordinated policies and procedures. As with the meetings between the Chairmen, the CMD project has offered its assistance to the middle-managers group.

In addition to the activities that are directly related to surveillance training and technology, the project is also addressing a wide range of related legal and regulatory issues. For example, the project and its legal subcontractors are drafting new rules and regulations to enhance the capital market's current legal and regulatory structure. These initiatives include suggesting enhancements to the current regulations that govern insider trading, price manipulation, and secrecy, as well as proposing ways in which the Egyptian capital market can improve transparency, disclosure, and enforcement mechanisms. In addition, we are working with the CMA to help improve the accounting and presentation standards required for the financial statements of listed companies.

Finally, the project is working to improve the availability of information for market participants and regulators by advising the CMA on requirements for an EDGAR-like corporate information system. Such a system has the potential to increase overall market transparency and facilitate the enforcement of disclosure requirements.

## **E. Conclusion**

This update has outlined the CMD project's overall approach to the surveillance issue as a way of discussing how the original deliverables in the work plan, as well as other activities related to surveillance, have progressed with the project's experiences during the first quarter of 1999. Most importantly, the project has changed its focus from conducting formal two- and three-day workshops for the CMA and CASE staffs to providing a series of ongoing, informal discussion sessions and on-the-job training. These sessions are far more effective in teaching basic surveillance techniques and in ensuring that the groups retain these techniques. They have also allowed the project to tailor its delivery of material to the different knowledge levels at the CMA and CASE and provided an environment where the two groups can start thinking about and preparing for their future roles in the Egyptian capital market's surveillance and regulatory structure.

On the whole, the CMD project's is pleased to report that its original surveillance activities have expanded in response to requests from its partner institutions and the changing needs of the Egyptian environment. These activities now include advising senior managers on coordinating surveillance and regulatory policy, ongoing training activities for the surveillance and information technology departments, training activities for the MCSD, and extensive efforts to improve the legal and regulatory structure under which surveillance takes place.

Slide Presentation on US Stock Exchanges

# U. S. Stock Exchange

1

## **Trading Instruments**

### **Common Stock \ Equities**

- Corporate Bonds
- Options
- Futures
- Commodities
- Indexes
- Government Issues
- Mutual Funds

2

## **Common Stock**

### **Exchange Listed Equity**

- Over The Counter (OTC)
- Internet Trading
- Private Transaction

3

## **Listed Equity**

Common Stock is the ownership in a company, that entitles you to profit from that companies success, by increase in value or capital distributions ( cash or stock dividend).

4

## **The Stock Exchange**

Following the primary issuance (primary distribution through an IPO or a private placement ) the movement of ownership takes place in the secondary market, the stock exchange.

5

## **Other Terms for Stock Exchanges**

- Listed Equity Market
- Auction Market
- Order Driven Market
- Specialist Market
- Continuous Two Sided Market

6



## **Stock Exchange Role**

Provides a regulated place for Members to execute trades.

### Qualifies Brokers

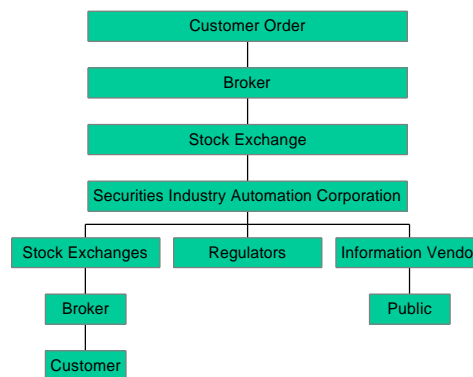
**Rules**  
**Examination**  
**Compliance**  
**Enforcement**

### Qualifies Issues

**Rules**  
**Audit**  
**Disclosure**  
**Enforcement**

7

## **Stock Exchange Information Flow**



8

## **How to Enter an Order**

- Customer makes a decision Buy/Sell
- Define the stock company name specifying the # of shares and prices (order)
- Qualifying the orders conditions for execution of trades

9

## CONSOLIDATED MARKET SCREEN

Exchange	Bid	Ask	Bidsize	Asksize	Volume
B	190 3/4	191	10	10	11200
C	190 1/2	191 1/4	5	5	5500
M	190 1/2	191	20	30	10500
N	190 1/2	191	5	200	61000
P	190 1/4	191 1/4	10	20	10000
X	190 1/4	191	5	2	7500
<b>IBM +190 3/4 -1/2 H191 L189 1/2 190 3/4 191 10 X 200 104700</b>					

10

## *Exchange Revenues*

- Transaction Charges
- Consolidated Tape Revenues
- Members fees
- Listing Fees

11

## **APPENDIX B**

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### **Four Handouts on Surveillance**

#### **Surveillance**

Who does it?

What is it?

When do they do?

Where is it performed?

Why do they do it?

#### **The Three Questions of Surveillance**

What are you looking for?

How will you find it?

What are you going to do with the information?

#### **Tasks**

Market Performance

Execution Quality

Rule Violation

Rule or Policy or Procedure  
Creation

Member Training

Market Analysis

Compliance

Stock Watch

Quality Assurance

#### **Division of Labor**

Customer

Broker

Exchange

Capital Market Authority

Parliament

## APPENDIX C

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### Handouts on Front Running

For the purpose of this discussion we are referring to the taking advantage of the knowledge of a pending trade, by the execution of a trade, prior to the *market impact* of the pending trade.

Front running is a form of *insider trading*, not about the information of an issuer, but the knowledge of a trade, or series of trades and their imminent impact on market price.

A broker, in acting as agent, is granted the privilege of the customer's intentions, and as such has a *fiduciary responsibility* to protect the customer from others stealing the rights of that customer.

**Market Surveillance** can detect instances of front running by performing a systematic review of the trading activity. There are certain assumptions that must be made to create an automated selection process.

1. A trade must be of sufficient size to have market impact value.
2. The value of a pending order is exhausted upon execution.
3. The speed of execution for the pending order precludes front running for a protracted time.

*The most likely violators of front running*

1. The fund manager or employees of the fund manager.
2. The broker or employees of the broker.
3. Others in the information flow, i.e. bookkeepers, custodians, etc.
4. Agents or operatives on the trading floor.

### Front running (an order of Size)

In the simplest form it involves the agent broker recognizing that a pending order from a client will, upon execution, have *market impact* and ignoring his *fiduciary responsibility* takes market action that enriches himself at the expense of his client. The broker is able to perform this activity because he *is in the marketplace* and has market knowledge his customer has the right to assume will be used to the customer's advantage.

### What clues should an analyst be watching.

*A Block Print*

- the price in relation to the last price
- the price in relation to the tick
- the price in relation to the Quote
- the size in relation to average trade in that security
- the size in relation to the prior print

- the side of the trade in relation to the quote

*After selection for review*

- Broker and the side represented
- Broker's activity on orders prior
- All account information

### **Sample**

TIME	VOLUME	PRICE	ASK	ASKSIZE	BID	BIDSIZE
1130	2000	25	25	400	24.75	500
1140	300	25	25	100	24.75	200
1150	500	25	25.20	700	25	500
1220	700	25.20	25.50	200	25	500
1255	200	25.50	26	5000	25	500
1300	5000	26	26	200	25	500
1315	200	26	26.10	900	25.50	500
1400	400	25.50	26.10	900	25.50	100
1430	100	25.50	25.50	300	25	500
1500	100	25.50	25.50	200	25	400
1520	100	25.50	25.50	100	25	300

**Presentation to CMA Chairman (March 24, 1999)**

**SURVEILLANCE**

**CAPITAL MARKETS  
DEVELOPMENT  
PROJECT**

**Cross Institutional Approach**

- Capital Markets Authority
- Cairo & Alexandria Exchanges
- Misr for Clearing, Settlement & Depository
- Egyptian Capital Markets Association

**Capital Markets Authority**

- Training
- Automated System
- Corporate Information
- Broker Examination
- Regulatory Authority

## On The Job Training

- Fiduciary Responsibility of an Agent
- The Market Impact Value of an Order
- Time and Space Advantage of Trading Floor

## Three Fundamentals Questions

- What are You Looking For?
- How are You Going to Find It?
- What are You Going To Do With It?

## Current Case Studies

- Front Running
- Insider Trading
- Short Selling
- Wash Trades
- Fiduciary Responsibility

## Automated System

- Have a systems Analyst assigned to team
- Writing Simple Queries to establish base
- Reviewing all data files
- Scope of Work for a Space Designer

## Corporate Disclosure

- Request For SEC expert on EDGAR
- Review OF International Accounting Standards
- Courses on Corporate Analysis

## Broker Examination

- Request For Expert with Experience in Field Examinations of Broker
- Books and Records (year one)
- Corporate Compliance (year two)
- Introduce Customer Account Form
- Strengthen Customer Trade Reporting
- Mandate monthly statements



## Regulatory Authority

- Comment on Legislative Proposals
- Specific Work on Insider Trading, Price Manipulation, and Secrecy
- Transparency, Disclosure, and Enforcement

## Cairo & Alexandria Exchanges

- Surveillance Department
- Stock Watch
- Brokers Compliance
- Member Code of Ethics

## Misr for Clearing, Settlement & Depository

- Information Sharing
- Internal Audit
- Member Compliance

## Egyptian Capital Markets Association

- Member Code of Ethics
- Participant Registry

## **APPENDIX E**

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### **Discussion Paper on Market Surveillance**

As the Capital Markets Development (CMD) project has commenced implementation of its 1999 Work Plan, there has been much discussion of the surveillance function in the Egyptian marketplace and how the CMD might provide the very best technical assistance to each of our institutional partners.

The CMD can support our partners across a wide range of activities. It can provide resources for the acquisition of the proper tools and training in support of the surveillance function. One area where the CMD can provide assistance is in the acquisition of surveillance technology, including software, hardware, and related consulting services. Obviously, automation of the surveillance function is of vital importance to Egypt.

Equally important in the creation of a world class surveillance operation is the defining of how surveillance should be structured for the Egyptian framework and environment. In order to determine the proper course of action, the surveillance environment must be reviewed in light of the current practices and policies, with consideration given to the requirements that will develop with the implementation of the new trading system later this year. An important issue to be discussed is the future structure of surveillance and market oversight in Egypt. The main question is what institution, or institutions, will perform the primary surveillance tasks and how will communication be developed between all of the concerned institutions?

Perhaps the best initial contribution CMD can make is assisting in the framing of the “questions” for discussion and decision. CMD can perform analysis and provide options for implementation, but the institutional partners will ultimately make the decision about what the surveillance function should include, how it will be conducted, and who will perform surveillance. CMD recommends that a steering committee meeting be called to finalize the short-term and long-term surveillance implementation goals for the Egyptian marketplace. This committee should include the senior management of the Capital Market Authority (CMA), the Cairo and Alexandria Stock Exchanges (CASE), and Misr for Clearing, Settlement, and Depository (MCSD). CMD can serve in a resource capacity for the steering committee, providing technical assistance and professional advice.

As the work progresses, it might be beneficial to have an information sharing sub-committee, comprised of high-level managers who are very conscious of the confidentiality requirements of the marketplace. This cross-institutional group could be structured to address the issue of how to communicate the detection of apparent violations of rules, regulations, and laws; and how to implement an open, fair, and logical program of penalties and censure.

An important issue is whether the primary market surveillance will be at the CMA, and for how long, or if and when those responsibilities might ultimately be shared or transferred to a self-regulatory organization (SRO). Is the CMA’s long-term objective to adopt a market oversight role? That is, is it the goal of the CMA to take on a role similar to that of the U.S. Securities and Exchange Commission Division of Market Regulation, and in essence, perform “surveillance of surveillance”? In the future, will trade-by-trade monitoring be conducted by a SRO under a CMA mandate that holds the SRO accountable for the results? From an international best practice viewpoint, this might provide a system of checks and balances, thereby encouraging stability and confidence in the market. Resolution of this issue will ultimately determine the tasks that each institution will undertake and the necessary automation, training, and communications linkages between the institutions.

Resolution of the question of by whom and how primary market surveillance will be conducted will also help develop the options for technology acquisition. The chosen structure of the surveillance program will dictate the optimum solution to the technology acquisition question.

When new surveillance technology is acquired, what are the variables to be considered in the decision process? Does off-the-shelf software exist anywhere in the world today? Do the institutional partners, or the CMD, know of programs or vendors that could be accessed? If not, are there existing surveillance programs that could be purchased, and cheaply and quickly be adapted to the Egyptian environment? If not, could the institutional partners, with CMD assistance, write and implement surveillance programs that would select exceptions and create historical trends? This option could be a solution for the short-term, while the longer-term solution awaits the implementation of the new trading system, and appropriate surveillance program, at CASE.

CASE has determined that the acquisition of data warehousing software, and ancillary hardware and technical consulting services, might be the best solution for the Egyptian environment. Data warehousing software is not a surveillance system (or program), but rather is a reporting and analysis tool, which would allow CASE to design, or build, a surveillance program with links to the new trading system and the other institutional partners. While the last option might be a very good solution for Egypt, this is a decision that should be taken with a great deal of forethought and based upon the structure and operation of the surveillance function. The steering committee should be aware that any CMD procurement is subject to the USAID procurement process, which can be time consuming. In order for the chosen surveillance program to be implemented in a timely fashion, program specifications and requirements should be made available as soon as possible in order to issue a Request for Bids and any required Scope of Work for consulting services to be provided by members of the CMD consortium. If the request is for a sole-source provider, then a justification of the selection and a waiver from the rules will need to be secured from USAID.

The ultimate structure and operating aspects of surveillance will also influence the training requirements, formal and on-the-job, for both the new trading system and any chosen surveillance product. Training should be cross-institutional in character and coordinated to ensure the very best outcome for all the institutional partners. Certain training aspects might require access to historical databases, and should be undertaken with all due security to protect confidentiality.

The outcome of open, frank discussions about market surveillance in the Egyptian marketplace will benefit all of the institutional partners, as well as the CMD, by identifying ways in which they can more efficiently allocate their resources. The objective is a timely, problem-free implementation of the chosen surveillance product and the commencement of accurate, real-time market surveillance.